What is claimed is:

1.   A service unit for a telecommunications network that communicates computer data over a distribution network using orthogonal carriers, the service unit comprising:

a multicarrier modem having a port that is adapted to be coupled to the distribution network; and

a bridge/router, including:

interface logic, coupled to the multicarrier modem, that is adapted to receive a data dial tone from the multicarrier modem indicating that at least one data channel has been established as a data path for communicating data to the head end and that is adapted to control the placement of data in the at least one data channel;

a data link controller, coupled to the interface logic, that encodes/decodes data;

a local area network controller, coupled to the data link controller; and

a local area network port coupled to the local area network controller.

2.   The service unit of claim 1, wherein the interface logic uses added bit signaling to identify the order of data channels used for the data path.

3.   The service unit of claim 1, wherein the data link controller comprises an HDLC controller.

4.   The service unit of claim 1, wherein the local area network controller comprises an Ethernet controller.

5.   The service unit of claim 1, and further including a router coupled between the local area network controller and the local area network port.

6.   A service unit for a telecommunications network that communicates computer data over a distribution network using orthogonal carriers, the service unit comprising:

a multicarrier modem having a port that is adapted to be coupled to the distribution network; and

a bridge/router, including:

interface logic, coupled to the multicarrier modem, that is adapted to receive a data dial tone from the multicarrier modem indicating that at least one data channel has been established as a data path for communicating data to the head end and that is adapted to control the placement of data in the at least one data channel;

a local area network controller, communicatively coupled to the data link controller; and

a local area network port coupled to the local area network controller.

7.   The service unit of claim 6, wherein the interface logic uses added bit signaling to identify the order of data channels used for the data path.

8.   The service unit of claim 6, and further including a router coupled between the local area network controller and the local area network port.